

## DESIGNING COMPUTER GAME BASED ON COMBINATION OF DRILL-PRACTICE AND DECISION MAKING CONCEPT FOR ENHANCE CHILDREN'S PERCEPTION OF ANTI-CORRUPTION

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### Abstract

The aim of this study was to develop a computer game with the theme of anti-corruption moral education for children. Techniques or strategies used in the development of this game were drill and practice techniques combined with decision-making techniques. In this game, the words or the pictures were arranged into two options that represented corruption and anti-corruption statement. Decision making activities to choose any word or image were done repeatedly to build awareness of anti-corruption which affected memory. The result of this study was an educative computer game for children to improve their awareness and perception on the moral of anti corruption. Next, it needed to be tested on samples to see whether the kids who played this game were more concerned with the positive perception to avoid corruption.

**Keywords:** computer games, drill and practice, moral education

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### INTRODUCTION

In the eyes of Asian investors, corruption in Indonesia, in this case is corruption in the courts, Indonesia scored 8.03 on a scale of 1 to 10 with a note that gets a score of 1 is the best and who got a score of 10 is the worst (www.kpk.go.id). Now corruption is not only a systematic crime, but it has reached the level of holistic. Corruption has pierced the heart of the cultural and billions of bacteria spread to the brain and soul of the people of Indonesia [1]. Corruption is a destructive force, which destroys democracy in Indonesia in the form of bribe, inflated prices, corruption makes the nation and the people suffer [2]. Legally Indonesia has made ratification of the United Nations Convention against Corruption, 2003, through Act No. 7 Year 2006. Corruption in Indonesia is widespread and systematic as well as an extraordinary crime and requires extraordinary countermeasures [3]. In addition, the reason of the application of MPR Decree year 1998 because corruption is still a national concern, need decisive action to combat corruption and eradication of corruption has not been implemented seriously [4].

In the history of corruption in Indonesia turned out to various regulations have been issued and various institutions have been established by the government to combat corruption. Based on the Corruption Perceptions Index 2003 (published by Transparency International) that Indonesia is ranked 122 with a score of 1.9. While the Corruption Perceptions Index 2006 showed that Indonesia is ranked 130 with a score of 2.4 (rank 1 is Finland with a score of 9.6). In this case the score and rank Indonesia rose, meaning that during the years 2003 to 2006 to eradicate corruption in Indonesia is experiencing success, but success was not better than the progress made by other countries.

With the implementation of Curriculum 2013, automatically learning paradigms and strategies used in schools also need to change. One important factor that will affect the character of learning models is the development of information and communication technology (ICT). Teachers are currently required to have sufficient ICT competence to facilitate student learning. With ICT everyone including children will be very easy to access information for various purposes.

Games in adolescents and children can lead to addiction effects, resulting in neglect of real life. This is the real problem faced by many gamers to be more able to perform self-control. The effects of this addiction can lead to negative behaviors such as stealing money to buy new games, skipping school, doing homework lazy, or a feeling of calm when not playing games. In addition, most of the addiction or play games will also be able to disturb the development of the child [5] and also encourage the criminal act [6].

In this study there are three keywords that become the center of interest, namely, anti-corruption, education of children and adolescents, as well as games. This study tried to find a solution how to provide a positive game for children and adolescents as part of anti-corruption in the education process. The results of this study did not address certain subjects in school, but more on providing technology-based gaming environment in children and adolescents who can build their character early on. Game developed a web based games to fit the gadget which is very popular and commonly used by children and adolescents while playing the game. Socialization this game there will be done through a variety of social networking there and also at the game shop there.

Noting the importance of character education in the curriculum of Education in 2013, it need attention for educating anti-corruption stance early on for children and teens to be things that. On the other hand corruption is a major problem of the nation also needs to be eliminated through early anti-corruption education. The development of ICT especially games as a positive, an opportunity for the provision of an alternative environment for anti-corruption education for children and adolescents. With these premises, the formulation of the problem in this research is how to develop web based games for the anti-corruption education in children and adolescents. The purpose of this study is in accordance with the formulation of the problem that has been presented previously is developing web-based gaming for an anti-corruption education in children and adolescents.

## THEORETICAL BACKGROUND

### Corruption definition

Corruption is derived from the Latin word corruption or *corruptus*. Corruption comes from the word *corrumpere*, an old Latin word. That's down from the Latin European languages such as English is corruption; and the Netherlands is *corruptie*, *korruptie*. Of the Dutch language is this word that is down to the Indonesian *korupsi*. Corrupt: foul; false; bribery (Indonesian Dictionary, 1991) bad; damaged; like to receive a bribe; misappropriate money/ goods or state-owned enterprises; receive money by using his position for personal gain (Dictionary of Law, 2002). Corruption: crime; dishonesty; immoral; deviation of sanctity (The Lexicon Webster Dictionary, 1978) bribery; forgery (Indonesian Dictionary, 1991) misappropriation or embezzlement of money or the company as a State where a person works for personal gain or other person (Dictionary of Law, 2002). According to Syed Hussein Alatas there are 7 topology of corruption, namely:

- Corruption transaction corruption shows that the agreement between the parties to give and take for the sake of mutual benefits that both parties are equally active running corruption.
- Corruption is corruption ex-coercion include certain forms of coercion where the donor is forced to bribe in order not to endanger themselves, interests, people or other things that he valued.
- Investee Corruption is corruption that involves an offer of goods or services without any direct linkage with certain advantages obtained giver, in addition to the benefits expected to be obtained in the future.
- Nepotistic corruption is corruption in the form of special treatment or a friend who has a close relationship in order to hold public office. In other words put close relationship and contrary to the norms and rules that apply.
- Corruption is corruption authigenic individuals because they have the opportunity to benefit from the knowledge and understanding of something that is only known to themselves.

- Corruption is corruption trigger a supportive atmosphere conducive to the creation of protecting or maintaining the presence of corruption.
- Corruption is corruption defensive forced in doing in order to defend themselves from extortion.

Based on understanding of article 2 of Law No. 31 of 1999 as amended by Act 20 year, 200, Corruption is an act with intent unlawfully enriches themselves/ others (individuals or corporations that could harm the financial/ economic state. Elements that must be met in order to be considered as an act of corruption is: unlawfully enrich themselves/ others, and "be" detrimental to the financial/ economic.

In daily practice are not rare public servants/ officials/ organizers country/ waitress nation expects to receive the gift of the services they provide. The new service is sometimes given when there kickbacks or fees. Do not expect public services will be smooth if not handed baksheesh [7]. Based on the description can be understood that in fighting corruption, there are 3 forming elements, namely prevention (anti-corruption/ preventive), action (prevention/ contra-corruption)/ repressive) and community participation. Combating corruption is a step to establish good governance [8].

### **1.1. Games**

Game is something that can be played by certain rules so that there are winners and there are losers, usually in the context of no serious or entertainment purposes. Games are divided into two types of web-based games and text-based games. Web-based game is a game application that is placed on a server on the Internet where players only need internet access and a browser to access the game. So there is no need to install to play. While text-based game is the beginning of web-based games. Text-based games have been around a long time, by which time most of the computers is still low and difficult spec to play games with great graphics, so that game players only interact with existing texts and little drawings.

### **1.2. Influence Game to Children**

Mohammad Fauzil Adhim, in his article, found children who love to play online games is very child like the challenge. These children tend to dislike stimuli whose appeal is weak, monotonous and not challenging. It is at least result in academic learning. Children become lazy to learn or often skipped school just to play games. Akio Mori, a professor at Tokyo's Nihon University doing research on the effects of online games on brain activity. Akio Mori of research it can be concluded that there are two important points.

To prevent a child's play is certainly not an easy job. Internet facilities are widely available everywhere, one internet cafe, one of the children can access the Internet from anywhere. Does not always have to play at home, the child could steal time after school by visiting the arena of online gaming or internet cafes that surround their schools. For that, there are some things parents should do. Some of them are:

- In collaboration with teachers at the school to take part in monitoring the progress of student learning.
- Establish informal communication so that a child could be open to parents, so that parents can provide education to a child without the child feel judged.
- Learn about online gaming. So you can discuss with your child about the game. If this can happen, the child will not need to look for an escape with his friends to just talk about the game online games. So that children can feel more at home in the house because it can get a chat friend who understands their world.
- Give special time playing online games, and more strict to your child not to play beyond the agreed time. It shows that you do not merely prohibit, but gives leeway. On the other hand you teach your child to be responsible at the time he had.

### **METHOD**

This research is the development of a model using 4D (define, design, develop, and disseminate). This research was funded by the Institute for Research and Development, University of Ahmad

Dahlan period in 2014. Because this research is being in the implementation, so in this article cannot be discussed in full all phases of development research. Results are shown only at the stage of conceptual models approach the game with a drill and practice as part of the decision making process.

## RESULT AND DISCUSSION

It is used as the basis for the initial development of the game is decisive game application specification. Here are the games the specification in the application of this anti-corruption game.

**Features.** Like the game in general features provided in this game include: game instructions, game level, the score obtained, the number of chance to play, a slide bar for the movement, bonuses, and challenges.

**Platform.** This game was developed to be in the browser Firefox, Opera, Safari, Chrome and others, so it will be developed with HTML5. The development of the application will use Adobe Flash.

**Decision Making.** This game is basically a game for a quick decision. The decision to be taken is to choose between the negative words associated with corruption and positive words associated with non-corruption. Decision provided a fast time. This is because of the victory in the game or to move level determined how many words are chosen properly.

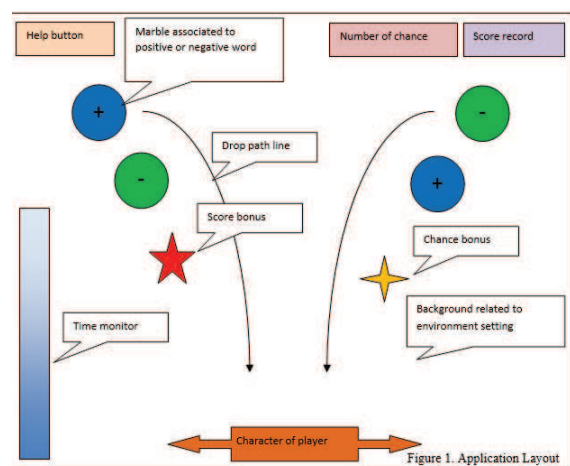
**Drill and Practice.** The words used negative and positive overall at every level of no more than 15 words. This action will continue as repetition at that level to get a high score. The appearance of the words is done randomly. With this repetition is expected to occur on the internalization of self-player game.

**Playing Strategy.** The words will slide or fall from a random direction between the upper right and upper left with varying distances from the center position as the default position of the player. Players have to choose quickly. The rule is if positive word should be arrested, and if a negative word to be thrown. Fail in the capture would lead to a

reduction in value. Conversely, if true would provide score addition.

**Scoring.** It is given the opportunity to play three times. Reduction of continuous values will cause death or reduction in the chance to play. Instead of collecting the maximum value of the scores will finish the game and move to a higher level. Yet despite the continually accumulated score, the game will be stopped due to time constraints that have been provided. In addition, during the game will be given a bonus game that randomly appear in the form of value addition, the addition of extra playing time and a chance to play (lives).

**Setting the game.** The game is available that describes the three levels of the game setting. Settings provided are the decisions about corruption at home, school, and community.



Based on the specifics of the game that has been described, the conceptual layout of the game is shown in Figure 1.

## CONCLUSION

This article reveals only define and design phases of the 4D stages. Other stages have not been done. The important thing to consider is the time of dissemination. At this stage needs to be seen whether it will be a change in behavior and perception of anti-corruption stance in children.

Trials to evaluate their effectiveness need to consider the duration of use of this game in order to see the changes.

In the development, in fact the present era most games are developed with the Android base

associated with user mobility. The particular gadget game can only be played with the base web view that as lacking of this game application.

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#### REFERENCES

- [1] **Tranggono, Indra.** *Kompas*. January 26, 2013, p. 6.
- [2] **Home, Cameron R.** *Kompas*. February 1, 2008, p. 6.
- [3] **Alkostar, Artidjo.** *Kompas*. February 6, 2008, p. 6.
- [4] **Isra, Saldi.** *Kompas*. January 18, 2008, p. 6.
- [5] **TV, Trans.** Ketagihan Game Online, Bocah 13 Tahun Mencuri. *Detik TV*. 4 9, 2013.
- [6] **Primartantyo, Ukky.** Kecanduan Game Online, Anak Bisa Kriminal. *Tempo*. July 1, 2012.
- [7] **Hanny, Vincentia.** Melawan Korupsi “vis-à-vis” Perlawanan Koruptor. *Kompas*. Agustus 16, 2005.
- [8] **Manan, Bagir.** *Menyongsong Fajar Otonomi Daerah*. Yogyakarta : PUSHAM UII, 2005.
- [9] **Marbun, F.S.** *Peradilan Administrasi Negara dan Upaya Administratif di Indonesia*. Yogyakarta : Liberty, 2003.
- [10] **Hartanti, Evi.** *Tindak Pidana Korupsi*. Jakarta : Sinar Grafika, 2005.
- [11] **Felker, D. and Dobbs, J.** *Android Application Development for Dummies*. Indianapolis : Wiley Publishing, Inc., 2011.
- [12] **Allen, G.** *Beginning Android 4*, Apress Media LLC. [Online] 2012. [Cited: January 14, 2013.] <http://www.it-ebooks.info/>.
- [13] **Sarbiran.** *Rencana Induk Pengembangan Penelitian UAD*. Yogyakarta : Universitas Ahmad Dahlan, 2011.